

CITY OF ABILENE

September 22, 2020

ADDENDUM

1

PROJECT: WATER DEPARTMENT STREET AND MISCELLANEOUS REPAIR WORK 2020-2021
BID DATE: SEPTEMBER 29, 2020
BID TIME: 11:00 A.M.
BID NO.: CB-2080

The following changes, corrections, clarifications and/or additions should be made in the specification document for the above referenced project. Bidder should acknowledge receipt of this addendum by signing below and returning with their bid.

Please use revised Bid Form pages 14-18 and plan sheets 42-43, dated 9/22/20 when submitting bid.

Bid Form Replacement:

Page 14 of this contract will be replaced in order to make an amendment to the last paragraph which currently reads:

Change From: Bidder Offers to complete any work under this Contract by September 30, 2021. Contractor may have option of continuing work for one additional year in accordance with Contract terms.

Change To: Bidder Offers to complete any work under this Contract by September 30, 2021. This Contract may be renewed for one additional term of one year at the current total amount bid upon mutual written consent of both the contractor and the City of Abilene.

Item Additions:

Item	Name	Quantity
TxDOT 666-1	Pavement Markers (Thermoplastic Striping)	300 LF
TxDOT 666-2	Reflectors	100 EA
TxDOT 666-3	Pavement Markers (Symbol)	10 EA
810	Raised Pavement Markers	500 EA

Additional Notes:

TxDOT 666 – These items shall govern the removal of any existing pavement markings, any necessary pavement preparation, sealant needed for the proper installation of thermoplastic or reflectors respectively, as well as temporary tabs that shall be used before pavement markings are laid, payment of which shall be subsidiary to these items . Pavement Markings can only be laid if the temperature is 50 degrees and rising. Contractor must wait a minimum of two week after pavement is installed before laying pavement markings.

810 – Button removal shall be subsidiary to this item, as well as any pavement preparation needed for proper installation. Button fabricated in Mexico will not be permitted.



MELISSA GORMAN
PURCHASING ADMINISTRATOR
CITY OF ABILENE

BIDDER'S ACKNOWLEDGMENT

BY _____

DATE _____

BID FORM

Date: _____

Bid of _____, ("Bidder"), organized and existing under the laws of the

State of _____, doing business as _____
(corporation, partnership, or individual)

To: THE CITY OF ABILENE, TEXAS

Bidder offers to perform all Work for constructing

WATER DEPARTMENT STREET AND MISCELLANEOUS REPAIR WORK 2020-2021

according to the Contract Documents and at the prices stated in the Bid Schedule.

Bidder acknowledges receiving Addenda: _____

Bidder certifies (if a joint bid, each party certifies as to its own organization) that this Bid has been arrived at independently and without consultation, communication or agreement with any other bidder or competitor as to any matters relating to this Bid.

Bidder offers to perform all contract work described for an as earned total of: _____

The Bid Schedule states the lump sum, unit prices, if requested, and alternate prices.

Bidder offers to complete any work under this Contract by September 30, 2021. This Contract may be renewed for one additional term of one year at the current total amount bid upon mutual written consent of both the contractor and the City of Abilene.

BID SCHEDULE

Show bid prices in words and numerals. Words take precedence over numerals. Round off unit prices to two decimal places only. These Bid prices must include all labor, materials, equipment, insurance, overhead, superintendence, transportation, profit, and incidentals to cover the finished Work called for in the Contract Documents. *In case of mathematical error in extensions, (Unit Prices) prevails.*

BID SCHEDULE FOR WATER DEPARTMENT STREET AND MISCELLANEOUS REPAIR WORK 2020-2021 BASE BID NOTE: Bids shall include all applicable taxes and fees.				
ITEM	ESTIMATE QUANTITY	DESCRIPTION AND UNIT PRICES (PRICE TO BE WRITTEN)	UNIT PRICE (NUMBERS)	TOTAL
201	100.00 SY	Rehabilitate Base at _____ DOLLARS and _____ CENTS PER SY		
204	10.00 HR	Sprinkling (Dust Control) at _____ DOLLARS and _____ CENTS PER HR		
247	75.00 CY	Flexible Base (Type A, Gr. 2) at _____ DOLLARS and _____ CENTS PER CY		
251	10,000.00 SY	Reworking Base Material (Var. Depth) at _____ DOLLARS and _____ CENTS PER SY		
275	325.00 SY	Portland Cement Treated Material at _____ DOLLARS and _____ CENTS PER SY		
310	1,600.00 GAL	Asphalt Prime Coat (AEP) at _____ DOLLARS and _____ CENTS PER GAL		
340-1	1,200.00 TON	Hot Mix Asphaltic Concrete (Type "D")(2") at _____ DOLLARS and _____ CENTS PER TON		
340-2	50.00 TON	Hot Mix Asphaltic Concrete (Type "B")(Var. Depth) at _____ DOLLARS and _____ CENTS PER TON		
360	200.00 SY	Concrete Pavement (Class "P")(7") at _____ DOLLARS and _____ CENTS PER SY		
401	10.00 CY	Flowable Backfill at _____ DOLLARS and _____ CENTS PER SY		

<p align="center">BID SCHEDULE FOR WATER DEPARTMENT STREET AND MISCELLANEOUS REPAIR WORK 2020-2021 BASE BID</p> <p align="center">NOTE: Bids shall include all applicable taxes and fees.</p>				
ITEM	ESTIMATE QUANTITY	DESCRIPTION AND UNIT PRICES (PRICE TO BE WRITTEN)	UNIT PRICE (NUMBERS)	TOTAL
420-1	3,000.00 SF	Concrete Structure (Alley Approach)(Class "A")(6") at _____ DOLLARS and _____ CENTS PER SF		
420-2	75.00 SY	Concrete Structure (Valley Gutter)(Class "P")(7") at _____ DOLLARS and _____ CENTS PER SY		
420-3	6,000.00 SF	Concrete Structure (Class "P")(6" Driveway) at _____ DOLLARS and _____ CENTS PER SF		
500-1	30.00 EA	Mobilization (Large Watercut) at _____ DOLLARS and _____ CENTS PER EA		
500-2	320.00 EA	Mobilization (Small Watercut) at _____ DOLLARS and _____ CENTS PER EA		
500-3	10.00 EA	Mobilization (Emergency) at _____ DOLLARS and _____ CENTS PER EA		
502-1	12.00 MO	Barricades, Signs, and Traffic Handling at _____ DOLLARS and _____ CENTS PER MO		
502-2	6.00 EA	Barricades, Signs, & Traffic Handling (Emergency) at _____ DOLLARS and _____ CENTS PER EA		
529	600.00 LF	Concrete Curb, Gutter, & Combined Curb and Gutter at _____ DOLLARS and _____ CENTS PER LF		
531-1	1,200.00 SF	Sidewalk (Class "A")(4") at _____ DOLLARS and _____ CENTS PER SF		
531-2	150.00 SF	Curb Ramps at _____ DOLLARS and _____ CENTS PER SF		
TxDOT 666-1	300 LF	Pavement Markers (Thermoplastic Striping) at _____ DOLLARS and _____ CENTS PER LF		

BID SCHEDULE FOR WATER DEPARTMENT STREET AND MISCELLANEOUS REPAIR WORK 2020-2021 BASE BID NOTE: Bids shall include all applicable taxes and fees.				
ITEM	ESTIMATE QUANTITY	DESCRIPTION AND UNIT PRICES (PRICE TO BE WRITTEN)	UNIT PRICE (NUMBERS)	TOTAL
TxDOT 666-2	100 EA	Reflectors at _____ DOLLARS and _____ CENTS PER EA		
TxDOT 66-3	10 EA	Pavement Markers (Thermoplastic Symbols) at _____ DOLLARS and _____ CENTS PER EA		
810	500 EA	Raised Pavement Markers at _____ DOLLARS and _____ CENTS PER EA		
SPL-1	3,500.00 SY	Small Watercut Pavement Repair (Hot Mix) at _____ DOLLARS and _____ CENTS PER SY		
SPL-2	8.00 HR	Vacuum Truck (Dust Control) at _____ DOLLARS and _____ CENTS PER HR		
SPL-3	10.00 HR	Site Clean Up at _____ DOLLARS and _____ CENTS PER HR		

TOTAL AMOUNT OF BASE BID (in words): _____

TOTAL AMOUNT OF BASE BID (in numbers): \$ _____

Respectfully submitted,

Signature

Typed or Printed Name

Title: _____

Address: _____

Telephone: _____

Federal Tax I.D. #: _____

ATTEST:

Signature

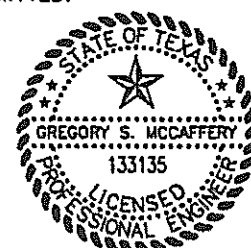
Typed or Printed Name

Title: _____

(Seal required if Bid by Corporation)

GENERAL NOTES:

1. ACCESS TO BUSINESSES AND RESIDENCES WILL BE AVAILABLE AT ALL TIMES. THE COST ASSOCIATED WITH THE CONSTRUCTION AND MAINTENANCE OF THIS ACCESS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE SUBSIDIARY TO OTHER BID ITEMS. IT IS IMPERATIVE THAT THE CONTRACTOR HAS THE EQUIPMENT AND MANPOWER AVAILABLE AT ALL TIMES TO INSURE THAT ACCESS IS AVAILABLE.
2. CONTRACTOR MUST COORDINATE ONGOING CONSTRUCTION WITH OTHER CONSTRUCTION WITHIN THE LIMITS OF THE PROJECT AND ALTER HIS OPERATION AS NECESSARY.
3. PLEASE REFER TO ITEM #11 IN SUPPLEMENTARY CONDITIONS IF IT BECOMES NECESSARY TO MAKE UTILITY ADJUSTMENTS DURING THE PROJECT. THE CONTRACTOR SHALL WORK WITH THE UTILITY COMPANY AND PERMIT THIS WORK TO BE ACCOMPLISHED. THE COST OF DELAY DUE TO ANY UTILITY ADJUSTMENT SHALL BE ABSORBED BY THE CONTRACTOR AND WILL NOT BE CHARGED TO THE CITY OF ABILENE, TEXAS. THE ENGINEER MAY SUSPEND CONTRACT TIME AS NECESSARY DURING UTILITY ADJUSTMENT.
4. ITEM 201 REHABILITATE BASE. THIS ITEM SHALL GOVERN THE REHABILITATION OF THE EXISTING BASE BY SCARIFYING, IF NECESSARY, BLADING, SPRINKLING, ADDING BASE AND ROLLING TO OBTAIN A SMOOTH, UNIFORM TEXTURE AND DENSITY.
5. ITEM 204 SPRINKLING. ON OCCASION THE WATER DEPARTMENT MAY NEED THE CONTRACTOR TO CONTROL DUST ON AN AREA STILL UNDER CONSTRUCTION BY THE WATER DEPARTMENT. IN SOME CASES THIS WILL BE DONE BY WATERING A SITE WITH THE CONTRACTORS WATER TRUCK, AND THE CONTRACTOR WILL BE PAID BY THE TIME THEY ARE ON SITE (NO TRAVEL TIME WILL BE PAID) TO THE NEAREST HALF HOUR.
6. ITEM 247 FLEXIBLE BASE. FLEX BASE TYPE "A" GRADE 2 WILL BE PLACED IN AREAS AS DETERMINED AS NECESSARY BY THE ENGINEER.
7. ITEM 251 REWORKING BASE MATERIAL. THE EXISTING MATERIAL WILL BE INSPECTED, EXCAVATED AND REWORKED TO A DEPTH AS DETERMINED BY THE INSPECTOR OR ENGINEER. IN MOST CASES THIS WILL BE TO A DEPTH OF 6"-8". IT MAY BE NECESSARY TO EXCAVATE THE TRENCH FULL DEPTH TO ACHIEVE PROPER DENSITY. COMPACTION WILL BE ATTAINED BY USE OF COMPACTOR ROLLER, AIR TAMP OR OTHER MECHANICAL MEANS AS APPROVED BY THE ENGINEER. ALL EXCESS BASE MATERIAL SHALL BE THE CONTRACTOR'S PROPERTY AND SHALL BE REMOVED FROM THE SITE.
8. ITEM 275 PORTLAND CEMENT TREATED MATERIAL. CEMENT TREAT SUBGRADE ON FLEXIBLE BASE WITH 30 POUNDS OF CEMENT PER SQUARE YARD AT A DEPTH OF 6".
9. ITEM 340 HOT MIX ASPHALTIC CONCRETE. THE HOT-MIX DESIGN FOR THIS PROJECT IS THE RESPONSIBILITY OF THE CONTRACTOR. SHOULD THERE EXIST A HOT-MIX DESIGN THAT IS IN USE BY THE CITY AND CONTRACTOR CHOOSES TO USE IT, HE MAY. THIS, HOWEVER, WILL NOT RELIEVE HIM/HER OF THE RESPONSIBILITY FOR THE END PRODUCT. IF THE WEATHER CONDITIONS ARE FAVORABLE, THE CONTRACTOR MAY STOCKPILE HOT-MIX AND RE-HANDLE IT. CARE SHOULD BE EXERCISED, HOWEVER, TO PREVENT THE MIX FROM COOLING BELOW 200 DEGREES F. ASPHALT PAVEMENT WILL NOT BE PLACED IN STOCKPILES ON ANY NEWLY PLACED SURFACE. A STOCKPILE AREA INDEPENDENT OF THE PROJECT WILL BE SELECTED. THE REQUIREMENT FOR AUTOMATIC SCREED CONTROL DEVICES WILL BE WAIVED FOR THIS PROJECT. THE LAYDOWN EQUIPMENT SHALL BE APPROVED BY THE ENGINEER. THERE MAY BE AN OCCASION DUE TO PRIOR SEAL COATS OR REPAIRS WHERE MORE THAN 2" OF HOT-MIX DEPTH WILL BE REVEALED. IN THIS INSTANCE, A COURSE OF TYPE "B" HOT MIX WILL BE LAID TO 2" BELOW GRADE, OR AS DIRECTED BY THE ENGINEER, FOLLOWED BY A COURSE OF 2" TYPE "D" HOT MIX.
10. ITEM 500 MOBILIZATION. MOBILIZATION TO BE PAID AS EACH INDIVIDUAL PAVEMENT REPAIR AREA IS COMPLETED. THIS WILL BE A PAY QUANTITY ITEM. FOR MORE INFORMATION, SEE PROJECT METHODS AND CONTRACT PROCEDURES.
11. ITEM 502 BARRICADES, SIGNS, AND TRAFFIC HANDLING. THIS PROJECT REQUIRES THE CONTRACTOR TO INSTALL CONSTRUCTION BARRICADES AND SIGNS. PLEASE NOTE THAT A CONTRACTOR NAME SIGN WILL BE REQUIRED AT THE BEGINNING OF THE PROJECT AND IN FULL VIEW OF PUBLIC. ALL MARKERS, TRAFFIC CONTROL PLAN, AND OTHER TRAFFIC RELATED INCIDENTALS SHALL BE IN ACCORDANCE WITH THE CURRENT TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAY FOR THIS WILL BE SUBSIDIARY TO THE ITEM 502.
14. ITEM 529 CURB, GUTTER AND COMBINED CURB AND GUTTER. CONCRETE CURB AND GUTTER WILL NOT CONTAIN REINFORCEMENT.
15. ITEM 531 SIDEWALKS. CONSTRUCT SIDEWALKS AND CURB RAMPS IN ACCORDANCE WITH CITY OF ABILENE STANDARDS AND TEXAS ACCESSIBILITY STANDARDS.
16. ITEM TxDOT 666 PAVEMENT MARKERS. THESE ITEMS SHALL GOVERN THE REMOVAL OF ANY EXISTING PAVEMENT MARKINGS, AND NECESSARY PAVEMENT PREPARATION, SEALANT NEEDED FOR THE PROPER INSTALLATION OF THERMOPLASTIC OR REFLECTORS RESPECTIVELY, AS WELL AS TEMPORARY THAT SHALL BE USED BEFORE PAVEMENT MARKINGS ARE LAID, PAYMENT OF WHICH SHALL BE SUBSIDIARY TO THESE ITEMS. PAVEMENT MARKINGS CAN ONLY BE LAID IF THE TEMPERATURE IS 50 DEGREES AND RISING. CONTRACTOR MUST WAIT A MINIMUM OF TWO WEEKS AFTER PAVEMENT IS INSTALLED BEFORE LAYING PAVEMENT MARKINGS.
17. ITEM 810 RAISED PAVEMENT MARKERS. BUTTON REMOVAL SHALL BE SUBSIDIARY TO THIS ITEM, AS WELL AS ANY PAVEMENT PREPARATION NEEDED FOR PROPER INSTALLATION. BUTTONS FABRICATED IN MEXICO WILL NOT BE PERMITTED.



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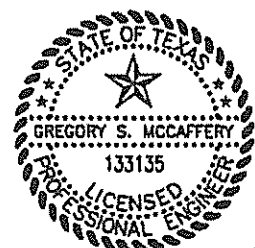
ESTIMATE AND QUANTITIES SHEET

BASIS OF ESTIMATE

ITEM #	DESCRIPTION	APPROX. RATE	UNIT
310	ASPHALT PRIME (AEP)	.2 GAL/SY	GAL
340	HOT MIX ASPHALTIC CONCRETE (TYPE "D")	220#/SY	TON

ESTIMATE OF TOTAL QUANTITIES

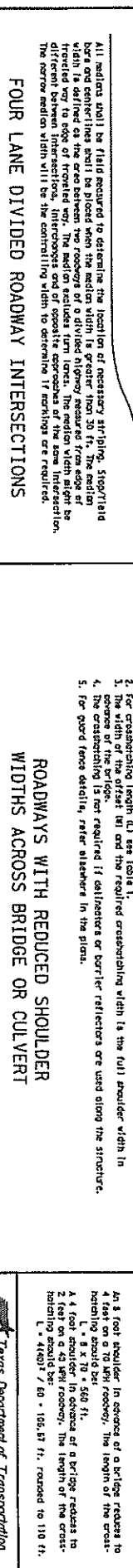
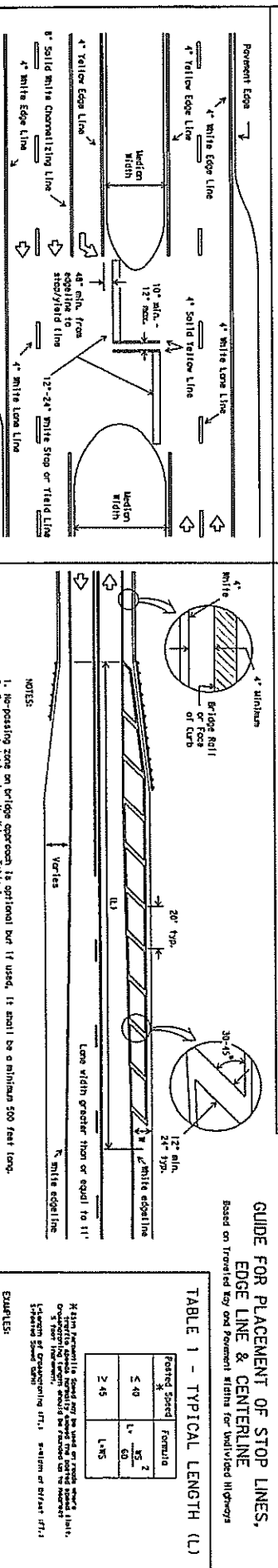
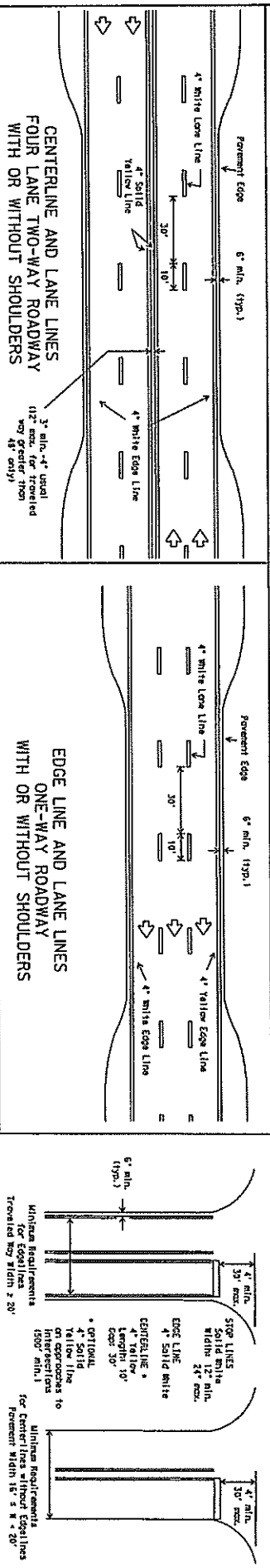
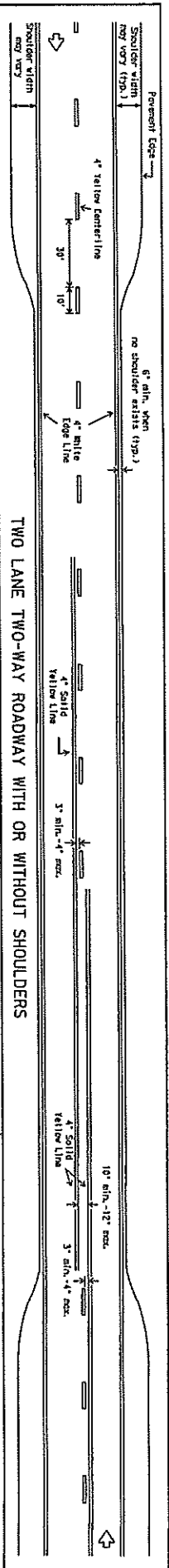
ITEM #	DESCRIPTION	UNIT	TOTALS	
			ESTIMATED	FINAL
201	REHABILITATE BASE	SY	100	
204	SPRINKLING (DUST CONTROL)	HR	10	
247	FLEXIBLE BASE (TY A)(GRADE 2)	CY	75	
251	REWORKING BASE MATERIAL (VAR. DEPTH)	SY	10,000	
275	PORTLAND CEMENT TREATED MATERIAL	SY	375	
310	ASPHALT PRIME (AEP)	GAL	1,600	
340-1	HOT MIX ASPHALTIC CONCRETE (TYPE "D")(2")	TON	1,200	
340-2	HOT MIX ASPHALTIC CONCRETE (TYPE "B")(VAR. DEPTH)	TON	50	
360	CONCRETE PAVEMENT (CLASS "P")(7")	SY	200	
401	FLOWABLE BACKFILL	CY	10	
420-1	CONCRETE STRUCTURE (ALLEY APPROACH)(CLASS "A")(6")	SF	3,000	
420-2	CONCRETE STRUCTURE (VALLEY GUTTER)(CLASS "P")(7")	SY	75	
420-3	CONCRETE STRUCTURE (DRIVEWAY)(6")(CLASS P)	SF	6,000	
500-1	MOBILIZATION (LARGE WATERCUT)	EA	30	
500-2	MOBILIZATION (SMALL WATERCUT)	EA	320	
500-3	MOBILIZATION (EMERGENCY)	EA	10	
502-1	BARRICADES, SIGNS, & TRAFFIC HANDLING	MO	12	
502-2	BARRICADES, SIGNS, & TRAFFIC HANDLING (EMERGENCY)	EA	6	
529	CONCRETE CURB, GUTTER AND COMBINED CURB AND GUTTER	LF	600	
531-1	SIDEWALKS (CLASS "A")(4")	SF	1,200	
531-2	CURB RAMPS	SF	150	
TxDOT666-1	PAVEMENT MARKERS (THERMOPLASTIC)	LF	300	
TxDOT666-2	REFLECTORS	EA	100	
TxDOT666-3	PAVEMENT MARKERS (SYMBOLS)	EA	10	
810	RAISED PAVEMENT MARKERS	EA	500	
SPL-1	SMALL WATERCUT PAVEMENT REPAIR--HOT MIX PAVEMENT	SY	3,500	
SPL-2	VACUUM TRUCK (DUST CONTROL)	HR	8	
SPL-3	SITE CLEAN UP	HR	10	



Gregory S. McCaffery
9/22/2020

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DATE: FILE:



GENERAL NOTES

1. Easement markings shall be as shown in the plans or as directed by the Engineer. The easement shall typically be placed a minimum of 6 inches from the edge of pavement. This distance may vary due to pavement curbing or other conditions. Easement lines are not required in curb and gutter sections of roadways.
2. The traveled way includes only that portion of the roadway used for vehicular travel. It does not include the shoulders, medians, or other areas used for travel. The traveled way shall be measured from the inside of edge line to inside of edge line of a two-lane roadway.

MATERIAL SPECIFICATIONS

PAYMENT MARKERS (REFLECTORIZED)	DMS-4200
EXPORT AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAYMENT MARKERS	DMS-6120
TRAFFIC PAINT	DMS-3200
HOT APPLIED THERMOPLASTIC	DMS-3220
PERMANENT PREFABRICATED PAYMENT MARKERS	DMS-3240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.

YIELD LINES

FOR POSTED SPEED ON ROAD BEING MARKED EQUAL TO OR GREATER THAN 45 MPH

3 to 12' 12' 24'

18' 12' 24'

FOR POSTED SPEED ON ROAD BEING MARKED EQUAL TO OR LESS THAN 45 MPH

18' 12' 24'

TYPICAL STANDARD PAVEMENT MARKINGS

PM(1)-12

DATE: FILE:

GUIDE FOR PLACEMENT OF STOP LINES, EDGE LINE & CENTERLINE

Based on Traveled Way and Pavement Widths for Individual Highways

TABLE 1 - TYPICAL LENGTH (L)

Posted Speed	Formula
≤ 40	$L = \frac{WS}{2}$
45	$L = \frac{WS}{2}$
≥ 45	$L = WS$

EXAMPLES:

An 8 foot shoulder in cross-section of a bridge reduces to 4 feet on a 70 mph roadway. The length of the cross-section should be:

$L = 8 \times 70 = 560$ ft.

A 4 foot shoulder in cross-section of a bridge reduces to 2 feet on a 45 mph roadway. The length of the cross-section should be:

$L = 4 \times 45 = 180$ ft.

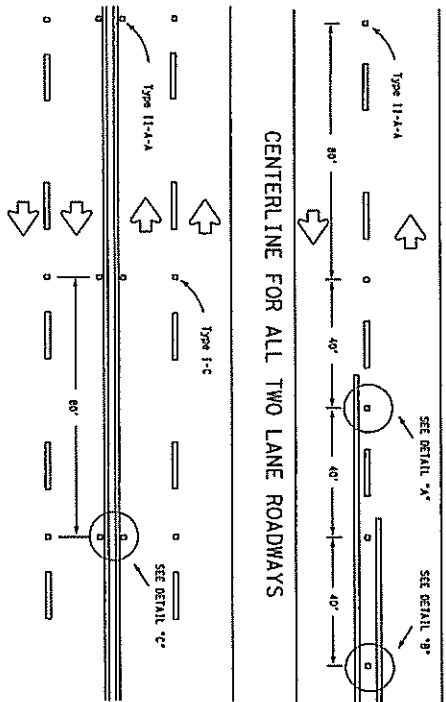
Texas Department of Transportation
Traffic Operations Division

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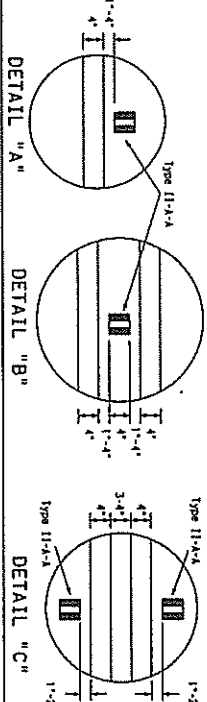
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REFLECTIVE RAISED PAVEMENT MARKERS FOR VEHICLE POSITIONING GUIDANCE

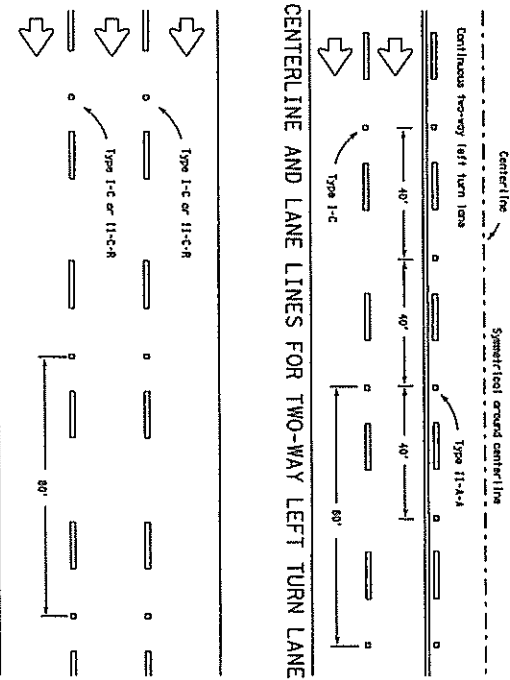
CENTERLINE FOR ALL TWO LANE ROADWAYS



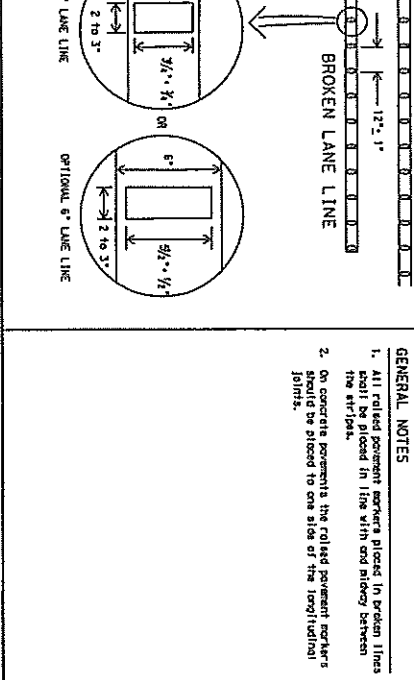
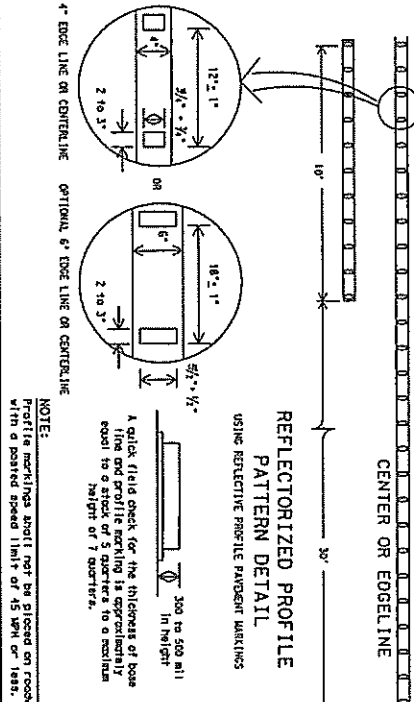
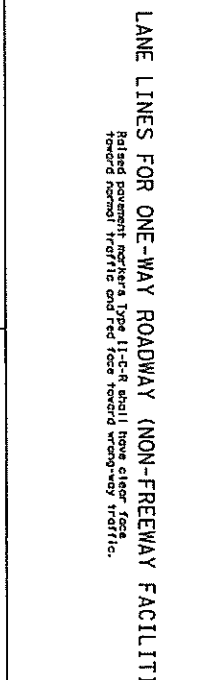
CENTERLINE & LANE LINES FOR FOUR LANE TWO-WAY HIGHWAYS



CENTERLINE AND LANE LINES FOR TWO-WAY LEFT TURN LANE



LANE LINES FOR ONE-WAY ROADWAY (NON-FREWAY FACILITIES)



MATERIAL SPECIFICATIONS

PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPoxy AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
REFLECTORIZED THERMOPLASTIC	DMS-8220
REFLECTORIZED THERMOPLASTIC PAVEMENT MARKERS	DMS-8240

All pavement marking materials shall meet the required performance material specifications as specified by the plans.

RAISED PAVEMENT MARKERS

SECTION A

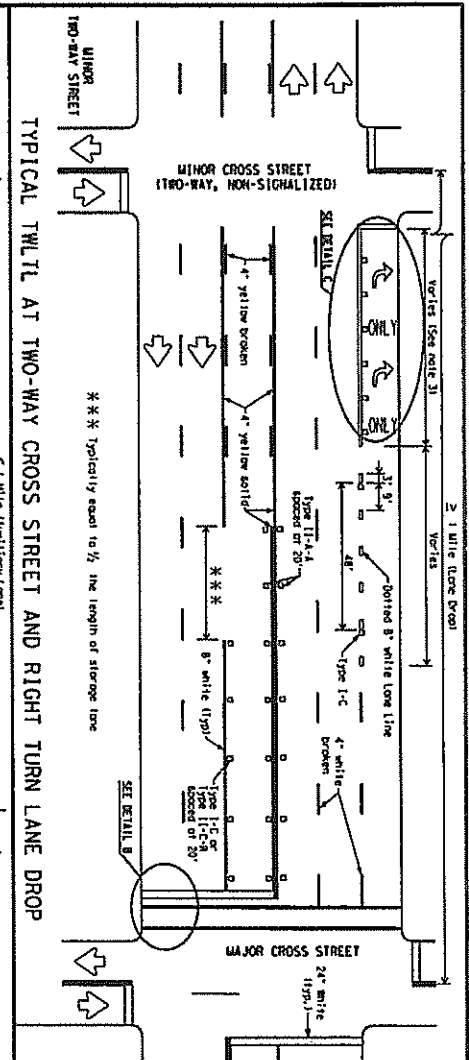
POSITION GUIDANCE USING RAISED MARKERS

REFLECTORIZED PROFILE MARKINGS

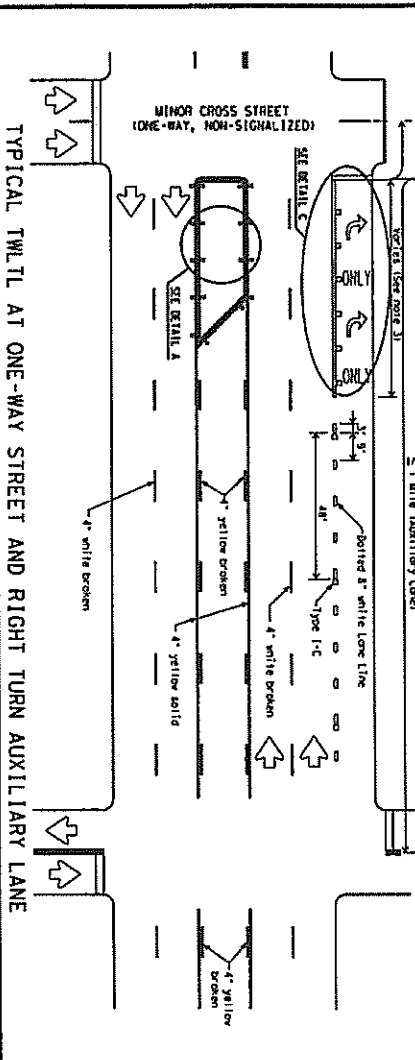
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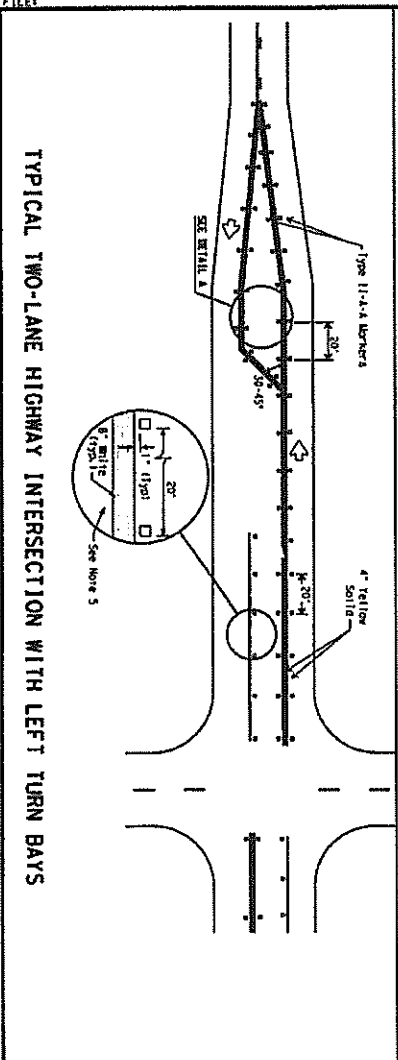
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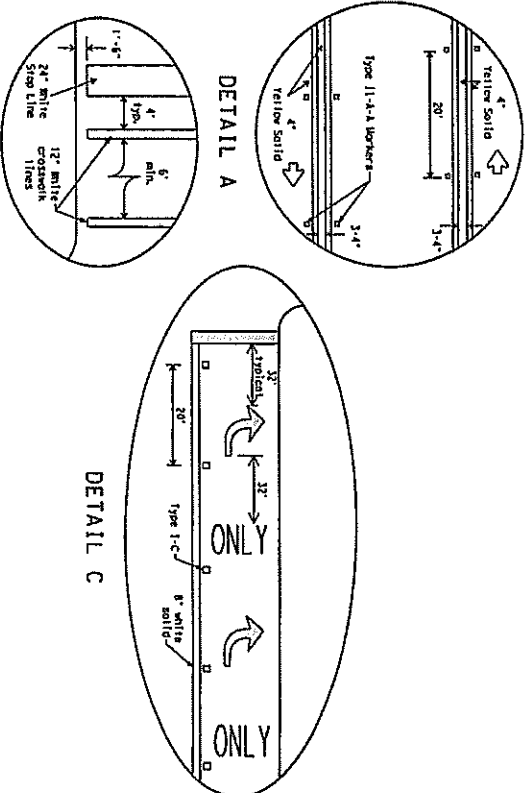
TYPICAL TWLTL AT TWO-WAY CROSS STREET AND RIGHT TURN LANE DROP



TYPICAL TWLTL AT ONE-WAY STREET AND RIGHT TURN AUXILIARY LANE



TYPICAL TWO-LANE HIGHWAY INTERSECTION WITH LEFT TURN BAYS



DETAIL C

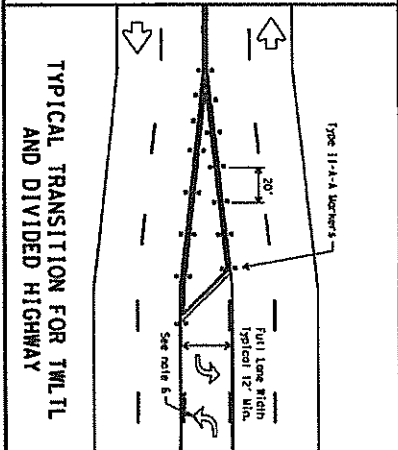
DETAIL A

DETAIL B

Final placement of Stop Bar and Crosswalk shall be approved by the Engineer in the field.

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPDM AND ADHESIVES	DMS-6130
DILUTABLES ADHESIVE FOR PAVEMENT MARKERS	DMS-6100
TRAFFIC PAINT	DMS-8230
HOT APPLIED THERMOPLASTIC	DMS-4420
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-4240

All pavement working materials shall meet the required Departmental Material Specifications as specified by the plans.



TYPICAL TRANSITION FOR TWIL AND DIVIDED HIGHWAY

GENERAL NOTES

1. Refer elements in place for additional flow placement and details.
2. Look up word and arrow markings. Markers are used where flow lines approach an intersection to become mandatory turn lanes. Look up markings of arrows and arrows with markings of additional lengths. Look up arrow markings of arrows and arrows with markings of additional lengths. Look up arrow markings of arrows and arrows with markings of additional lengths.
3. When flow used and arrow markings are used, the pairs of arrows should be used in the length of the arrow markings. The arrow markings are used for a short turn lane of a road. The arrow markings are used for a short turn lane of a road.
4. When additional markings are used, the pairs of arrows should be used in the length of the arrow markings. The arrow markings are used for a short turn lane of a road. The arrow markings are used for a short turn lane of a road.
5. Refer to the markings of the arrows and arrows with markings of additional lengths. Look up arrow markings of arrows and arrows with markings of additional lengths. Look up arrow markings of arrows and arrows with markings of additional lengths.
6. When flow used and arrow markings are used, the pairs of arrows should be used in the length of the arrow markings. The arrow markings are used for a short turn lane of a road. The arrow markings are used for a short turn lane of a road.
7. When flow used and arrow markings are used, the pairs of arrows should be used in the length of the arrow markings. The arrow markings are used for a short turn lane of a road. The arrow markings are used for a short turn lane of a road.

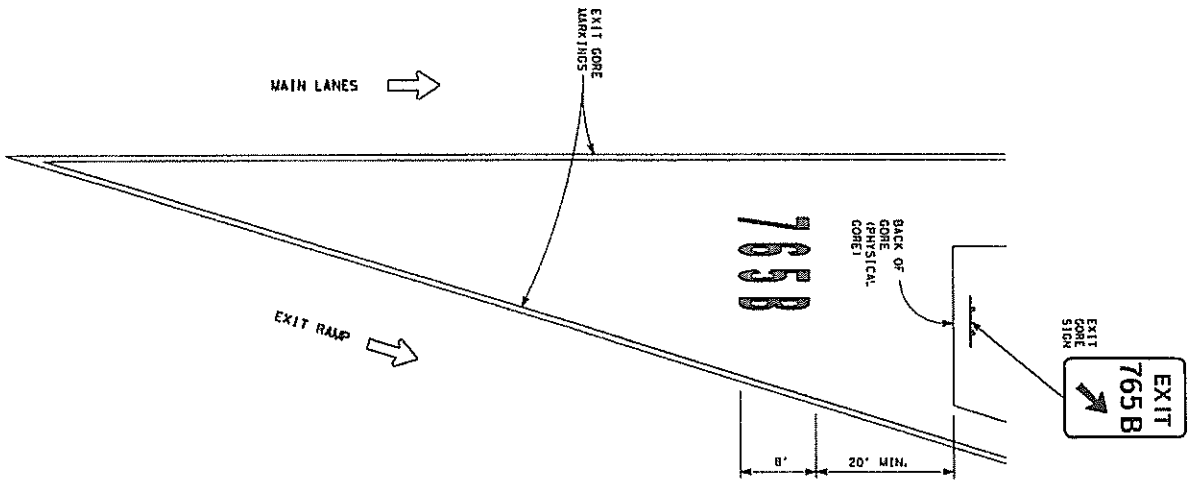
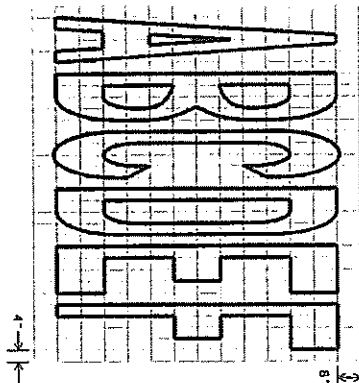
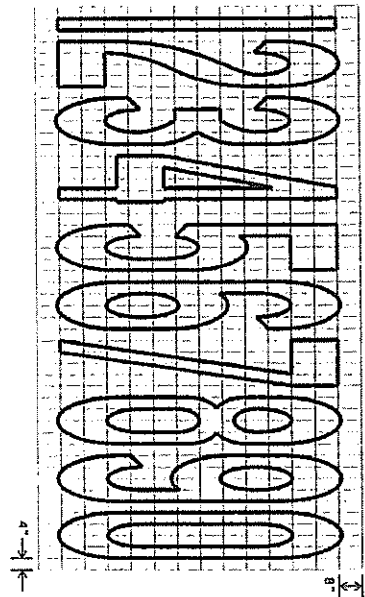
**PAVEMENT MARKINGS FOR
TWO-WAY LEFT TURN LANES
DIVIDED HIGHWAYS AND
RURAL LEFT TURN BAYS**

PM(3)-12

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DATE:
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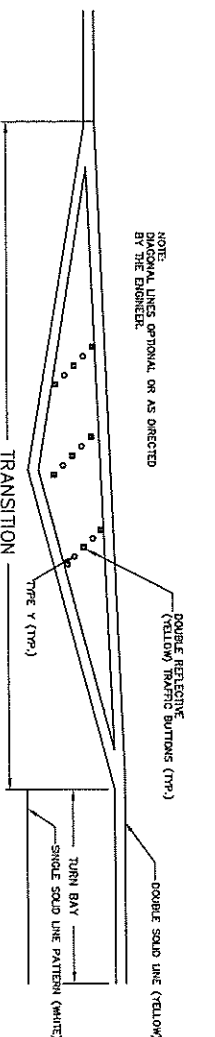


GENERAL NOTES

1. Minimum 8 foot white markings should be used, unless otherwise noted.
2. Spacing between letters and numbers should be approximately 4 inches.
3. Pavement markings are to be located as specified elsewhere in the plans.
4. All pavement marking materials shall meet the required Departmental Material Specifications or as specified in these plans.

 Texas Department of Transportation Traffic Operations Division		EXIT NUMBER GORE MARKINGS FOR AERIAL VIEW DETAIL PM(4)-12	
15001 APR 11 2006 T-100	PM (4) 12 15001	15001 15001	15001 15001
2-10 2-12	15001 15001	15001 15001	15001 15001

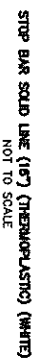
022



TYPICAL LEFT TURN CHANNELIZATION USING RAISED PAVEMENT MARKERS
NOT TO SCALE



NOT TO SCALE



NOT TO SCALE



NOT TO SCALE

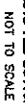


1. A SETBACK OF 15' IS REQUIRED ON EACH END OF THE BLOCK. SPACE ADJUSTMENT WILL HAVE TO BE MADE IN MOST CASES, TO PERMIT 15' SET-BACKS.

2. CERAMIC TRAFFIC BUTTONS FROM MEXICO WILL NOT BE USED. A SAMPLE OF EACH TYPE OF BUTTONS WILL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.
3. REFLECTIVE RAISED PAVEMENT MARKERS SHALL BE DOUBLE REFLECTIVE YELLOW FOR YELLOW LINES, REFLECTIVE WHITE ON THE APPROACH SIDE FOR STANDARD WHITE LINES AND WHITE ON THE APPROACH SIDE AND RED ON THE OPPOSITE SIDE FOR WHITE LINES ON SINGLE DIRECTION PAVEMENTS, I.E., ONE-WAY STREETS OR DIVIDED ROADWAYS.
4. PAVEMENT MARKING MATERIAL FOR THE STOP LINES, CROSSWALK LINES, DOTTED LINES AND SYMBOL MARKINGS SHALL BE HEAT-APPLIED, PERFORMED THERMOPLASTIC REFLECTIVE PAVEMENT MARKING TAPE, 125 MIL THICKNESS, PREMARK 20/20 FLEX OR APPROVED EQUAL. LINE WIDTH FOR TRANSVERSE PAVEMENT MARKINGS SHALL BE MINIMUM OF 6" UNLESS OTHERWISE NOTED.



NOT TO SCALE



DESIGNED BY: G. MCCAFFERY	HORIZ. SCALE: NONE	DRAWING NAME:
DRAWN BY: T. MATTHEWS	VERT. SCALE: NONE	2101
CHECKED BY: S. CHANDLER		DATE: 09/2020